

II. Amendments to the Claims

This listing of claims replaces, without prejudice, all prior versions and listings of claims in the application:

Listing of Claims:

1. (Cancelled).

2. (Currently Amended) The method of claim ~~1~~ 19 wherein said at least one interfering signal ~~is~~ comprises a synchronization signal.

A3 3. (Currently Amended) The method of claim ~~1~~ 19 wherein at least two interfering signals are transmitted by said transmitter and said receiver determines each of said at least two interfering signals and their respective received power levels and subtracts those determined interfering signals at their respective received power levels from said total received signal.

4. (Previously Presented) The method of claim 3 wherein said at least two interfering signals comprise a first synchronization signal for determining slot timing in signals transmitted by said transmitter and a second synchronization signal for determining frame timing in signals transmitted by said transmitter.

5. (Currently Amended) The method of claim ~~4~~ 19 wherein said at least one interfering signal is a communication system control signal.

6. (Cancelled).

7. (Currently Amended) The method of claim ~~6~~ 19 wherein said interfering signal determined in ~~step (a)~~ step (iii) comprises is a non-interfering signal to at least one other receiver.

8. (Currently Amended) The method of claim 7 wherein said interfering signal determined in ~~step (a)~~ step (iii) comprises is a pilot signal.

A3 9. (Currently Amended) The method of claim ~~6~~ 19 wherein said other transmitter comprises is an adjacent base station.

10. (Currently Amended) The method of claim ~~6~~ 19 wherein said other transmitter comprises is an adjacent sector of a multi-sector base station.

11. (Cancelled).

12. (Currently Amended) The method of claim ~~11~~ 19 wherein the step of comparing is performed at predefined intervals.

Claims 13-18 (Cancelled).

19. (New) A method of improving reception in a multiple access communications system, comprising the steps of:

- A3
- (i) determining at least one interfering signal transmitted from a transmitter;
 - (ii) determining the received power level at a receiver of said at least one determined interfering signal;
 - (iii) determining at least one interfering signal transmitted from another transmitter;
 - (iv) determining the received power level at said receiver of said at least one determined interfering signal from said another transmitter;
 - (v) subtracting said at least one determined interfering signal at step (i) at said received power level determined at step (ii), from a total signal received at said receiver;
 - (vi) comparing the received power level determined in step (iv) to a predefined threshold level and omitting step (vii) when said threshold is not exceeded;
 - (vii) subtracting said at least one determined interfering signal at step (iii) at said received power level determined at step (iv) from said total signal received at said receiver;
- and
- (vii) determining a desired signal from the result of said subtractions.

20. (New) A method of improving reception in a multiple access communications system, comprising the steps of:

- (i) determining at least one interfering signal transmitted from a transmitter;
- (ii) determining the received power level at a receiver of said at least one determined interfering signal;
- (iii) determining at least one interfering signal transmitted from another transmitter;
- (iv) determining the received power level at said receiver of said at least one determined interfering signal from said another transmitter;
- (v) subtracting said at least one determined interfering signal at step (i) at said received power level determined at step (ii), from a total signal received at said receiver;
- (vi) subtracting said at least one determined interfering signal at step (iii) at said received power level determined at step (iv) from said total signal received at said receiver;

and

- (vii) determining a desired signal from the result of said subtractions,

wherein steps (iii) and (iv) are performed to select, from at least two other transmitters, the transmitter with the highest received power level in step (iv) and step (vi) is performed for said selected other transmitter.

21. (New) The method of claim 20 wherein said at least one interfering signal comprises a synchronization signal.

22. (New) The method of claim 20 wherein at least two interfering signals are transmitted by said transmitter and said receiver determines each of said at least two interfering signals and their respective received power levels and subtracts those determined interfering signals at their respective received power levels from said total received signal.

23. (New) The method of claim 22 wherein said at least two interfering signals comprise a first synchronization signal for determining slot timing in signals transmitted by said transmitter and a second synchronization signal for determining frame timing in signals transmitted by said transmitter.

24. (New) The method of claim 20 wherein said at least one interfering signal comprises a communication system control signal.

A3 25. (New) The method of claim 20 wherein said interfering signal determined in step (iii) comprises a non-interfering signal to at least one other receiver.

26. (New) The method of claim 25 wherein said interfering signal determined in step (iii) comprises a pilot signal.

27. (New) The method of claim 20 wherein said other transmitter comprises an adjacent base station.

28. (New) The method of claim 20 wherein said other transmitter comprises an adjacent sector of a multi-sector base station.

29. (New) The method of claim 20 wherein steps (iii) and (iv) are performed at predefined intervals to select, from at least two other transmitters, the transmitter with the highest received power level in step (iv), and step (vi) is performed for said selected other transmitter.

30. (New) A method of improving reception in a multiple access communications system, comprising the steps of:

(i) determining the received power level at a receiver of at least one interfering signal transmitted from a transmitter, wherein said at least one interfering signal is predetermined;

A3 (ii) subtracting said at least one interfering signal, at said received power level, from a total signal received at said receiver; and

(iii) determining a desired signal from the result of said subtraction.

31. (New) The method of claim 30 wherein said at least one interfering signal comprises a synchronization signal.

32. (New) The method of claim 30 wherein at least two interfering signals are transmitted by said transmitter and said receiver determines their respective received power

levels and subtracts those interfering signals at their respective received power levels from said total received signal.

33. (New) The method of claim 32 wherein said at least two interfering signals comprise a first synchronization signal for determining slot timing in signals transmitted by said transmitter and a second synchronization signal for determining frame timing in signals transmitted by said transmitter.

34. (New) The method of claim 30 wherein said at least one interfering signal comprises a communication system control signal.

35. (New) The method of claim 30 further comprising the steps of:

A3 (a) determining the received power level at said receiver of at least one interfering signal from another transmitter, wherein said at least one interfering signal from another transmitter is known a priori;

(b) performing step (ii) by also subtracting said at least one interfering signal from another transmitter at the received power level determined at step (a) from said total signal received at said receiver; and

(c) performing step (iii) to determine a desired signal from the result of the subtractions.

36. (New) The method of claim 35 wherein said at least one interfering signal from another transmitter comprises a non-interfering signal to at least one other receiver.

37. (New) The method of claim 36 wherein said at least one interfering signal from another transmitter comprises a pilot signal.

38. (New) The method of claim 35 wherein said other transmitter comprises an adjacent base station.

39. (New) The method of claim 35 wherein said other transmitter comprises an adjacent sector of a multi-sector base station.

A3 40. (New) The method of claim 35 further comprising the step of comparing the received power level determined in step (a) to a predefined threshold level and omitting steps (b) and (c) when said threshold is not exceeded.

41. (New) The method of claim 40 wherein the step of comparing is performed at predefined intervals.

42. (New) The method of claim 35 wherein step (a) is performed to select, from at least two other transmitters, the transmitter with the highest received power level in step (a) and steps (b) and (c) are performed for said selected other transmitter.

43. (New) The method of claim 42 wherein step (a) is performed at predefined intervals to select the transmitter with the highest received power level and steps (b) and (c) are performed for said selected other transmitter.
